

IN THE DRAWINGS:

The attached sheet of drawings includes changes to FIG. 6. This sheet, which includes FIGS. 5 and 6, replaces the original sheet including FIGS. 5 and 6. In FIG. 6, now shows cross-hatch detail.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

REMARKS

Enclosed is a substitute sheet presenting FIGS. 5 and 6 with FIG. 6 now showing cross-hatch detail.

Claims 15 - 18 have been amended, to avoid the technical rejection to the Greek symbol for alpha.

Claims 5, 11 and 12 have been amended to overcome the rejection under 35 USC 112, second paragraph; claim 14 has been amended to overcome the technical rejection thereto.

Claims 1 - 4, 11 - 14 and 19 - 20 have been rejected under 35 USC 103(a) as unpatentable over Davenport '998 in view of Roberts et al. '523. Claim 1 has been amended, above, to emphasize that applicant's device is "wind driven" unlike the primary reference of Davenport.

There is no teaching in Davenport, much less in Roberts et al., that the planetary gear set in Davenport should or could be successfully used in a wind turbine. Davenport describes a thrust reversing system for an airplane. The flux energy in the Davenport device is reversed relative to the flux energy of the device of the present invention. Davenport, starting from an engine of a predetermined size, finds it necessary to introduce a reduction between the motor and the propellers to limit the speed of the extremities of the propellers. In contrast, in the device of the present invention, it is desired to utilize a multiplier between the propellers

and the generator so as to limit the size of the generator.

Roberts describes a device similar to those mentioned in the introduction of the present specification, comprising a first propeller acting on a stator and a second propeller acting on a rotor of the generator. The disadvantages of such devices are mentioned in the description. Further, in Roberts (column 2, lines 16, 17) it is stated that it is advisable to obtain the same power from both propellers.

To the contrary, the present invention produces a proportional torque balance between both propellers (page 3, lines 18 - 21).

That is to say, one skilled in the art of wind turbines, starting with the explicit teaching of Roberts - to equalize power -, (the only reference being relied upon by the Examiner in the wind turbine art in the rejection), would clearly be directed, away from the concept of a planetary gear set interposed between counter-rotating propeller blades since the same amount of power will not be developed between the propeller blades.

From the foregoing discussion, with the absence of any teaching, motivation or suggestion in the art and, in fact, teachings which would discourage the same, it becomes apparent that the rejection of applicant's claims

is a product of hindsight on the part of the Examiner and, in effect, applicant's own teaching is being used as a reference against him. Consider that counter-rotating blades on a wind turbine have been known at least for 70 years since the filing date of Roberts et al., and the problems attendant with such a construction have been existent since then. Planetary gears have been known long before 70 years ago. However, the Examiner has been unable to find in his extensive search spanning a period of at least 70 years, any application of a planetary gear set to a wind turbine with double propellers. This fact, alone, demonstrates the non-obviousness of the present invention.

Claims 1, 3, 5, 11 - 13 and 20 have been rejected under 35 USC 103(a) as unpatentable over Cedoz '029 in view of Roberts et al. It is respectfully submitted that this rejection is in error for the same reasons set out above in connection with the similar rejection based on Davenport and Roberts et al. Both Davenport and Cedoz have power going in the wrong direction as compared to a wind turbine. Again, it is instructive that the Examiner has been unable to locate any patent showing a planetary gear set coupling a pair of counter-rotating windmill blades and that in both the instant rejection and in the rejection addressed above, he has had to resort to making reference to airplanes.

Claim 5 has been amended, above, to emphasize that the breaking device is concentric with the axis of the first and second shafts and such arrangement is impossible with any combination of Cedoz and Roberts et al.

Claims 15 - 18 have been rejected under 35 USC 103(a) as unpatentable over Davenport, Roberts et al., and Bertolia et al. Bertolia et al. describe a wind turbine using only one screw, the screw being adjustable for the stability of the wind turbine at all speeds. The purpose of the variation of angle is very different from the device of the present invention in which there are two screws, the angle being chosen to avoid a collision between the two screws. There is no suggestion in any of these references or other combination to modify the device of Davenport in view of Roberts et al. or Bertolia et al. that would result in the presently claimed device.

Claims 6 - 10, it is believed, have been presented, above, in a manner deemed to be allowable by the Examiner.

For all of the foregoing reasons, it is respectfully submitted that claims 1 - 20 are now in a condition for allowance and notice to such effect is respectfully requested.

If there are any further fees required by this amendment, please charge the same to Deposit Account No. 16-0820, Order No. 37953.

Respectfully submitted,

By. 

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